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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/992,666 | 11/19/2001 | Timothy P. Blair | 10013014-1 | 8495 |

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

REFAI, RAMSEY

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2152

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|----------------------------------------|------------|---------------|
| 3 MONTHS | 02/22/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|-------------------------------|------------------------------|--|
| Office Action Summary | Application No. 09/992,666 | Applicant(s) BLAIR ET AL. | |
| | Examiner Ramsey Refai | Art Unit 2152 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 20-23 is/are rejected.
- 7) ☒ Claim(s) 9-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

In view of the Appeal Brief filed on November 20, 2006, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

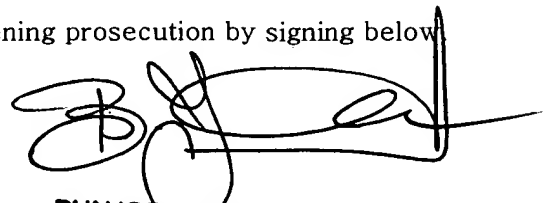
To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

Furthermore MPEP Chapter 1207.04 " *The examiner may, with approval from the supervisory patent examiner, reopen prosecution to enter a new ground of rejection after appellant's brief or reply brief has been filed. The Office action containing a new ground of rejection may be made final if the new ground of rejection was (A) necessitated by amendment, or (B) based on information presented in an information disclosure statement under 37 CFR 1.97(c) where no statement under 37 CFR 1.97(e) was filed. See MPEP § 706.07(a). Any after final amendment or affidavit or other evidence that was not entered before must be entered and considered on the merits.* "

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below



BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER

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Response to Arguments

1. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection necessitated by amendment to claims filed May 22, 2006.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bare (US 2003/0016624) in view of Lodwick (US 6,978,299).

4. As per claim 1, Bare teaches a method for configuring data communication paths between a central controller (fig 7, host 700) and a plurality of devices via a plurality of appliances, the method comprising:

ensuring one or more appliances (fig 7, switches 706,708) of the plurality of appliances are active (abstract; paragraphs [0029, 0032-0034]);

for each of the devices, determining communication capabilities (abstract; query messages) with the one or more appliances to determine communication paths between the plurality of devices (fig 7, host 704) and the one or more appliances (paragraphs [0016, 0028,0029, 0032-0034]);

transmitting signals indicative of the communication capabilities (abstract; ACK messages) to the central controller and mapping respective communication paths between the central controller and the devices via the one or more appliances as a function of the communication capabilities to obtain an automatic appliance failover to allow diagnostic data to

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be collected from a selected device by way of multiple appliances (paragraphs [0016, 0032–0034]).

Bare teaches an intermediate device such as a switch (appliance) that communicates with other devices (host) but fails to teach devices such as *printing devices* and where an appliance is a computer remote from the central controller *configure to collect diagnostic data from one or more of the plurality of printing devices*. However, Lodwick teaches printer polling devices that collects printer status information such as toner level, paper supply information, error information, etc, from printers and communicates such information to a server (column 11, lines 14–27). It would have been obvious to one of the ordinary skill in the art at the time of the applicant' s invention to combine the teachings of Bare and Lodwick because doing so would create a failover system for collector devices that collect diagnostic information from printers in order to provide an alternate path to obtain diagnostic data form a printer if the primary collector fails.

5. As per claim 2, Bare teaches:

for each of the devices, identifying an optimal path between the appliance and the device; and wherein the mapping includes: mapping the respective communication paths between the central controller and the devices as a function of the optimal paths (paragraphs [0028, 0017, 0032]).

6. As per claim 3, Bare teaches the identifying includes at least one of: determining one of a plurality of paths between the a selected appliance and the a selected device having a least number of hops; and determining one of a plurality of paths between the selected appliance and the selected device achieving a shortest communication time (paragraphs 0080, 0205, 0032, 0327,0241; paths based on cost such as number of hops).

7. As per claim 4, Bare teaches:

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for each of the devices, determining a second communication capability between a second appliance and the device; transmitting signals indicative of the second communication capabilities to the central controller; and wherein the mapping includes: mapping the respective communication paths between the central controller and the devices via the first and second appliances as a function of the first and second communication capabilities (abstract, paragraphs [0028, 0032-0034]).

8. As per claim 5, Bare teach substantially balancing respective device loads across the appliances (paragraphs [0026-0027]).

9. As per claim 6, Bare teaches a method for gathering diagnostic data, which are associated with a plurality of printing devices, by a central processing unit via a plurality of intermediate collectors that are connected to one or more of the plurality of printing devices through a network, where an intermediate collector is a computer remote from the control processing unit configured to collect diagnostic data from a selected printing device, the method comprising:

determining which of the plurality of intermediate collectors are capable of communicating with one or more of the plurality of printing devices to obtain a communication map to allow an automatic intermediate collector failover to occur if an intermediate collector fails to operate (abstract, paragraphs [0029, 0032-0034]; determine communication capabilities through each switch);

receiving a notification signal within the central processing unit that one of the intermediate collectors is available (abstract, paragraphs [0029, 0032-0034]; receiving ACK messages);

determining whether the identified device is capable of communicating with the available intermediate collector (abstract; paragraphs [0029, 0032-0034]);

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if the identified device is capable of communicating with the available intermediate collector; transmitting data from the central processing unit to the available intermediate collector; (paragraphs [0029, 0032-0034], fig 7; communicating with host B through identified paths).

Bare fails to teach the use of printing devices, identifying one of the printing devices for which the diagnostic data is desired, requesting the diagnostic data for the identified printing device, and transmitting signals indicative of the diagnostic data from the identified printing device to the central processing unit via the available intermediate collector. However, Lodwick teaches printer polling devices that collect printer status information such as toner level, paper supply information, error information, etc, from printers and communicates such information to a server (column 11, lines 14-27). It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to combine the teachings of Bare and Lodwick because doing so would create a failover system for collector devices that collect diagnostic information from printers in order to provide an alternate path to obtain diagnostic data from a printer if the primary collector fails.

10. As per claim 7, Bare teach determining optimal paths from each of the printing devices to the central processing unit via respective ones of the intermediate collectors; and wherein the determining whether the identified printing device is capable of communicating with the available intermediate collector includes: determining whether the identified printing device has an optimal path including the available intermediate collector (paragraphs [0028, 0017, 0032]).

11. As per claim 8, Bare teaches if the central processing unit has not received the notification signal for a predetermined time (paragraph [0146 that one of the intermediate collectors is available, retrieving the signals indicative of the diagnostic data for the printing devices having the respective optimal paths including the intermediate collector via another one

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of the intermediate collectors (abstract; failover to an alternate path based on failure of switch or path).

12. As per claim 20, this claim is similar to claim 6, therefore is rejected under the same rationale.

13. As per claim 21, Bare teaches means for automatically mapping the communication paths based on signals received from the plurality of appliances (abstract, paragraphs [0032-0034]).

14. As per claim 22, Bare teaches means for ensuring each of the appliances is active (abstract, paragraphs [0029, 0032-0034]).

15. As per claim 23, Bear teaches means for identifying addresses of the appliances and addresses of the printing devices with which the appliances are capable of communicating (abstract, paragraphs [0029,0033]).

Allowable Subject Matter

16. Claims 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are cited in the Notice of Reference Cited form (PTO-892).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Refai whose telephone number is (571) 272-3975. The examiner can normally be reached on M-F 8:30 - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ramsey Refai
Examiner
Art Unit 2152
February 15, 2007



BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER